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# NOTES

IN

## PRACTICAL SURGERY.

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NOTES  
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1. FOUR SUCCESSFUL CASES OF STONE IN THE URINARY BLADDER REMOVED BY THE OPERATION OF LITHOTOMY.
2. ANEURISM OF THE POPLITEAL ARTERY CURED BY DIGITAL PRESSURE IN TWENTY-SIX HOURS AND FORTY-FIVE MINUTES.
3. CASTRATION; THE VESSELS OF THE CORD SECURED BY ACUPRESSURE.

I HAVE often regretted that the valuable Dublin Hospital Reports have not been continued to the present time in the same able manner in which they were written and published by distinguished members of our profession who are now at rest. I believe that detailed accounts of cases of operative surgery brought to a successful termination, with a record of the various stages of progress, are invaluable, and will always be perused with interest by the earnest surgeon. It will be admitted also that the professional man who is placed under circumstances which afford opportunities of performing difficult and uncommon operations, is called upon to extend to others whatever experience he acquires. Under this conviction, I have selected from my note book the following cases. Those on lithotomy I consider most noteworthy, because among the diseases to which man is liable there are few which present themselves to the surgeon with more interest than calculus in the bladder. This is not to be

wondered at when we take into consideration the extreme sufferings of the patient, which are so frequent and acute as almost to make him wish for death to relieve him. When we remember, moreover, the uncertainty which prevails as to the constituent parts of the stone, and the consequent impossibility of rationally administering medicines with a view to its solution; or when we bear in mind the severe and dangerous operation to which sooner or later the patient is obliged to submit as his only remedy. And as to the operation I may add that, whether we consider its early history, the various modes of performing it, the average of fatal cases in a given number, the dangers attending it, the quickness and brilliancy of its performance, or the relief which it affords in an unerringly fatal disease, lithotomy is one of the most prominent operations in surgery, and gathers round it the largest possible amount of interest for the practical surgeon.

*CASE I. — Man aged Thirty-eight years ; Lateral Operation ; Recovery.*—Thomas D., a farmer, from the County Kildare, was admitted into the Meath Hospital, under my care, Sept. 23rd, 1858. The following is the history of his case as related by himself. About two years previous to his application at the hospital he was suddenly attacked with severe pain in the loins, while engaged at his employment, and immediately afterwards noticed that he passed bloody urine. This subsided in a day or two, and he was then annoyed by pain at the side of his glans penis, with frequent desire to void urine, followed by increased suffering when he had emptied his bladder. He also felt a call to discharge his bowels whenever micturition was demanded. He remained more or less in this condition until about two months prior to admission into hospital, when his sufferings became greatly aggravated. He was then pressed every half hour to make water, which was always bloody, and with a slightly fetid odour. He could not pass it with any ease unless when lying almost on his face, or partially on his left side; and his sensation was as if his bladder was not quite emptied, followed by painful and continued straining, together with the flow of some drops of pure blood. He described his agony as intense when he sat on the shaft of his car driving. He never had retention of urine, nor did he ever notice that the stream of water stopped suddenly in passing. His health, however, was gradually failing, and he became unable to perform any work. A week before he came to the hospital he could not retain his water,



which dribbled away at night, and he was also annoyed by painful erections. When he came under my care all the foregoing symptoms were prominently developed; and on examination it was found that he had a large bunch of external hemorrhoids, and that the glans penis, which was quite uncovered by prepuce, was looking moist and excoriated, and the lips and orifice of the urethra red and slightly everted. On the 21st September, with the assistance of my colleagues, I sounded him, being unable to pass a sound larger than No. 9, in consequence of the small size of his urethra, which was throughout narrow, though no abrupt stricture existed. The instrument on its introduction caused him a great amount of pain, but it immediately struck the calculus, giving proof of its presence. I withdrew the sound, and endeavoured to measure the stone with Mr. L'Estrange's ingeniously-constructed lithometre, but I was disappointed, as I could not grasp it. The sensation, however, which was given from passing the instrument over the surface of the stone led to the impression that it was of considerable dimensions. His urine was acid, and contained some pus globules. It also became slightly clouded when heat was applied, but only to as great an extent as could be explained by the presence of the purulent matter. On the 1st October, having his rectum cleared by an enema, and himself placed under the influence of chloroform, I proceeded to cut him for the stone. The man having been tied in the usual manner, I injected three ounces of tepid water into his bladder, and a No. 9 staff, grooved on the side, having been introduced, and admirably held by the late Mr. Smyly, the patient's buttocks were brought a little over the edge of the table. Kneeling then on my right knee, I commenced an incision with Mr. Ferguson's knife one inch and three quarters in front of the anus, to the left of the raphe; this I carried down midway between the tuberosity of the ischium and the anus, fairly passing both. By so doing it will be evident that the length of the cut was considerable; and I deem it of great importance to make the first incision a free one; (nearly three inches in the adult). I then divided the deeper structures with one or two light strokes of the knife; and having felt for the groove of the staff with the forefinger of my left hand, the nail of which I firmly fixed in it, lowering my wrist I thrust the lateralized knife from the *lowest part* of the wound upwards, and lodged its point in the groove, transfixing the urethra at its membranous portion. I then steadily pushed on the knife along the groove into the bladder, dividing partially the triangular fascia,

levator ani, prostate, and neck of bladder. A small quantity of water now escaped along the knife, when I rapidly withdrew the instrument, slightly making it cut its way out. I now laid aside Fergusson's knife, and passed Crampton's lithotome along the groove of the staff into the bladder, and carefully sent the index finger of my left hand along its back, and thus cut the prostate to a sufficient extent. Having withdrawn the lithotome, the cutting part of the operation was concluded. Keeping the index finger of my left hand in the wound and bladder I turned it twice round to dilate the parts, and then, having felt the stone, desired the staff to be removed. On the finger so placed I introduced a blunt gorget, along which, when I withdrew my finger, a large gush of water flowed. I then, guided by the gorget, introduced the forceps, took out the former, and keeping the forceps closed until I felt the stone, opened its blades, seized, and extracted the calculus. I then sought to ascertain if a second stone was present, but not finding any, I examined the wound, and there was no bleeding. I at once introduced, and fastened in, a tube, placed a suppository containing a quarter of a grain of morphine in his rectum, and caused the patient to be untied and removed to bed. It would be tedious to note from day to day the changes in this case. His progress to perfect recovery was rapid, and no bad symptom occurred throughout. The stone weighed in air 688 grains, in water 353 grains. Specific gravity 1.938. A tolerably faithful drawing of it is given in Plate I., Fig. 1. The man left the hospital, perfectly cured, on the 27th of November.

*CASE II.—A Boy aged Six years; Lateral Operation; Recovery.*—Patrick G. was admitted into the Meath Hospital, May 20th, 1862, suffering from symptoms of stone in the bladder, such as very frequent calls to pass water for the preceding twelvemonths, great pain after the bladder was evacuated, and at times, prolapsus ani when straining to void urine. He was constantly pulling at his prepuce, which was much elongated, and slightly excoriated. He complained occasionally of severe pain in the lower part of the abdomen, and used to expel large quantities of flatus. His bowels were at times very loose, and he often picked his nose until it bled. There never was any blood noticed in his urine, nor did the stream of water ever stop suddenly, but at times it passed in a quivering interrupted stream. On the 21st May I had this boy chloroformed, and sounded him; but did not detect the presence of the stone. I had



his pelvis then raised at least four inches above the level of his shoulders when the sound struck the foreign body, and declared its presence in the bladder.

*Operation.*—May 30th. His rectum having been cleared out by an enema of thin gruel in the morning, he was chloroformed, and two ounces of tepid water were thrown into the bladder by means of a catheter and syringe. A staff, laterally grooved, of the largest size his urethra would allow, was introduced, and intrusted to the care of Mr Wharton, who held it up well to the arch of the pubis, and he was tied in the usual manner. During a spasm some of the water escaped, and prolapsus ani occurred, but the bowel was with facility returned, and by gentle pressure remained in its place. I commenced an incision with Ferguson's knife, at the left of the raphe, about three-quarters of an inch in front of the anus, and carried it backwards to the extent of two inches. I then gave the deeper structures one stroke of the knife; and having felt for the groove of the staff, I fixed the nail of the left hand fore-finger in it, and immediately struck upwards with the point of the knife lateralized for the staff. Having placed the knife safely in the groove, I moved it from side to side, making sure that it was in its proper position. I then pushed it on to the bladder, dividing the neck of it, and the little prostate; withdrawing the knife, I gently inserted the fore-finger of my left hand, felt the stone, and directed the staff to be removed. On my finger I introduced a small gorget, and along it a forceps, grasped the calculus, and delivered it. I then felt for a second stone, but none being present, I examined for bleeding, and found some slight oozing, but no hemorrhage from any particular point. The *canule à chemise*, well oiled, was then inserted. The patient was at once placed in bed, with a waterproof sheet, and a folded blanket under his hips.

May 31st.—He had passed a tranquil night, and the water flowed freely by the canula. Daily the little fellow improved in health; the urine passed freely through the penis on the sixth day after the operation, and he left the hospital cured, August 6th.

My friend Professor Haughton kindly examined the calculus, a drawing of which I have added, Plate I, Fig. 3, when the following was the result:—

Weight in air, 328·3 grains.

Weight in water, 130·1 grains.

Specific gravity = 1·656.

The central nucleus was  $\frac{1}{4}$ th the linear diameter of the calculus, = to  $\frac{1}{64}$ th of its entire bulk, and composed altogether of oxalate of lime.

The exterior portion of the stone was concentrically arranged, porous, composed of lithic acid, with small portions of lithate of ammonia, phosphates of lime, and magnesia.

*CASE III.—Man aged Twenty-five Years; Lateral Operation; Recovery.*—John M'N., a baker, was sent to me from the county Tyrone, and admitted into the Meath Hospital, September 12th, 1864. The following were the symptoms under which he laboured:—Frequent inclination to make water, and intolerable pain when the last drops were being expelled; a dull pain in the lower part of the abdomen; occasional attacks of tenesmus. He was very much emaciated, and his countenance indicated suffering. He had symptoms of irritation of the bladder for two years previously, but never had retention of urine, or sudden stoppage of the stream. I sounded him, and with ease detected the calculus. The examination gave a good deal of pain, and some blood followed. He was ordered a hip-bath, and a mixture containing camphor and hyoscyamus, and the next day I found him easy.

*Operation.*—September 27th.—At 7 o'clock, a.m., he got an enema, which washed out his rectum thoroughly, his perineum was shaved, and at ten o'clock I had him brought into the operating theatre. I then passed a catheter, and drew off urine, and immediately afterwards injected about five ounces of tepid water. He was then put under chloroform, and whilst this was being accomplished, he was tied, and a good-sized staff, grooved on the side, introduced. With the staff he was sounded, the stone was felt, and the instrument was intrusted to my colleague, Mr. Wharton. His buttocks having been placed a little over the edge of the table, and held perfectly straight before me, I commenced an incision with Fergusson's knife, to the left of the raphe, about one inch and three-quarters anterior to the anus, and carried it backwards half way between the tuberosity of the ischium and the anus. I then went deeper, by two or three touches of the knife, over the same track. I felt with the left fore-finger for the staff, and having fixed my nail in it, lowering my hand, and lateralizing the blade of the knife, I struck upwards, and lodged the point in the groove, and pushed the knife along it into the bladder, until I felt it arrested by the

stop at the end of the staff. A little water flowed at this stage of the operation. Laying aside the knife, I passed in the lithotome, and my left fore-finger was inserted after it along its back, and divided the prostate; I then withdrew it, still keeping my finger in the bladder, with which I could distinctly feel the stone. I then requested the withdrawal of the staff, and along my finger passed in a gorget. A copious flow of water now coursed along the instrument. I introduced the forceps, laid down the gorget, seized a stone, and extracted it. A facet was observed on the calculus; and on introducing my finger, a second one was detected. The forceps was again introduced on my finger, and the other stone delivered. I now examined for bleeding, and, as there was none of consequence, I introduced a tube, tied it into the bladder, placed a morphine suppository in the rectum, had him untied, and conveyed to bed.

Sep. 28th.—He had passed a good night, the urine coming freely through the tube and wound.

Sep. 29th.—Felt a little feverish to-day; there was no pain; the stomach inclined to be sick. Ordered him small effervescing draughts, containing tincture of opium, and ice.

Sep. 30th.—Much better this day; he had a good night, free from all pain. I then removed the tube. This man progressed most favourably to recovery. The urine passed through the penis on the seventh day after the cutting, and he was discharged cured on the 5th December.

Figures 4, 5, and 6, Plate I., give very accurate representations of these stones. Fig. 4 exhibits the facet, Fig. 5 the manner in which they lay together in the bladder, and Fig. 6 a section which shows a cavity in the centre, proving that the nucleus was organic, and not from the kidney. I am indebted to Professor Haughton for the following qualitative analysis:—

Composition.—Principally phosphate of lime, with traces of phosphate of magnesia and lithates. They are rather rare urinary calculi, as they consisted so much of phosphate of lime.

CASE IV.—A *Youth aged Sixteen Years; Lateral Operation; Recovery.*—Christopher C., a native of the County Wicklow, was sent to be placed under my care, and admitted into the Meath Hospital November 3rd, 1864. On his admission, all the rational symptoms of stone in the bladder were present. Assisted by my colleagues, I sounded him the day after he came in, and instantly



detected the presence of a calculus. He had suffered for two years from vesical irritation, but the last two months before he came into hospital the pain he felt after micturition was most poignant. I had him placed in a warm bath at night on four different occasions, and gave him medicine likely to soothe the irritable condition of his bladder. On the 16th of November I proceeded to perform the operation of lithotomy for his relief. His rectum having been thoroughly evacuated by a simple enema, I had him brought under the influence of chloroform, and tied on the table of the operating theatre. I injected about four ounces of water into his bladder, having previously drawn off all urine. Having done this, I at once introduced a large-sized staff, grooved on its side, into the bladder, and with it sounded for, and felt the stone. And this is a preliminary never to be forgotten by the surgeon. It is no rule of my laying down, for every good lithotomist has enforced it. How fearful would be the mistake of cutting into a bladder and finding it free from the presence of the stone which, the very day before, had been distinctly felt! The possibility of passing one of small dimensions must never be forgotten. Convinced, in this case, of the existence of the calculus, I knelt on my right knee, laid Fergusson's lithotomy knife on his perineum, a little to the left of the raphe, and carried it back well beyond the anus, midway between it and the tuberosity of the ischium. Having deepened this incision sufficiently to fix the nail of my left fore-finger in the groove of the staff, I thrust the knife, lateralized, from the lowest part of the wound upwards and backwards, and transfixed the membranous portion of the urethra in the manner already described in the three former operations, and concluded the extraction of the stone in the same way. Assured by a careful examination that no second calculus was present, I looked for bleeding; and as none was visible, I put a tube in the wound, tied it in its position, and had the boy carried to his bed, which was prepared with a waterproof sheet, and folded blanket beneath his buttocks. The only peculiar feature in the operation worth noticing was the fact that I caught the stone in the long diameter, and was in consequence obliged to use a good deal of force with an up and down motion of the handles of the forceps before it was completely delivered. This had recovered most favourably. From the day of the operation he steadily improved, without the supervention of any unfavourable symptom, and left the institution, cured, on the 2nd January, 1865. A very faithful coloured lithograph of this calculus is given in Plate I., Fig. 2.

The practical points that I would urge on those who may be called on to perform the operation of lithotomy, are mainly with reference to the form of the staff, the injection of the bladder, and the manner of opening the urethra prior to cutting the prostate gland.

Differently-shaped staffs or guides into the bladder have been recommended to the surgeon who cuts for stone. Amongst those most lauded I may mention the ordinary one grooved on its convexity, the almost straight staff of Key, the rectangular of Buchanan, and Liston's, grooved on the side. The last named I have always used myself, and have no hesitation in giving my opinion in its favour, as possessing superior advantages. I believe the side-grooved staff is more easily struck, or reached, than those which are grooved on the convex part. But a still more important point in this construction is, that it more or less enforces the lateralization of the knife on its way into the bladder, thus keeping off its edge from the rectum. I have never seen this bowel wounded when Liston's staff was employed.

With regard to injecting the bladder before the operation, I must lightly approach this question. Some surgeons believe that an empty condition of the viscus is to be preferred, because it allows the stone to lie close to the neck of the bladder. On the other hand, it has been recommended to permit urine to collect for an hour or two previous to cutting. I must say that I consider it is far better to cut upon a bladder containing fluid, than when it is in an empty and collapsed state. It is more in its proper position when moderately distended; it is also more steady and resisting to be cut into, and the gush of fluid unmistakably proclaims that the operator has driven his knife in the right course. But it is better to evacuate all urine, and to throw tepid water into its place. A great deal has been written concerning the danger of infiltration of urine as a consequence of lithotomy, and much stress has been laid on the extent to which the prostate gland should be divided in order to obviate this unhappy occurrence. I feel convinced that too much credence has been given to this notion concerning the division of the gland beyond the limits of its capsule. Of course this division should be avoided, and it is not necessary unless the stone be of enormous size. My impression is (but I by no means put it forward as a positive doctrine) that infiltration is often produced by a want of correspondence in the different incisions as the knife travels to the bladder, and that it occurs almost immediately with the first escape

of urine. Every surgeon who has seen cases of extravasation of urine from ruptured or lacerated urethra, knows its baneful effects on the parts it touches, and how quickly it begins its action, ending in death of those parts. Now it strikes me that should the incisions not correspond, or be carried beyond the proper extent in the prostate, the contact of tepid water is safer than urine; and that the introduction of a tube into the incision and bladder, before the urine can be collected in any quantity, may possibly avert the dangerous consequences of a sudden gush of this secretion into the parts around the wound.

The last point on which I would dwell is the manner in which the operator should direct his knife when striking for the staff. The part of the urethra that should be opened is the membranous; and if for a moment its position be considered, overlapped more or less by the bulb, it will be seen that it is by no means an easy procedure to transfix it without wounding the bulb, and its artery. No doubt it has often been laid down by excellent surgeons that it is almost impossible to avoid wounding the artery of the bulb, and that such injury is of little moment. I maintain, nevertheless, that, if possible, such should not be done. To the very young or old patient the loss of blood is always a source of danger; and even regarding bleeding from the artery of the bulb in the lightest manner, it must be allowed that it is a most disagreeable and unhappy occurrence. I conceive that the operator may avoid this if, when striking for the staff, he directs his knife, properly lateralized, upwards and forwards from the *lowest* part of the first incision. Plate II. will explain my meaning. It will be seen that the wound in lithotomy is triangular in shape, the apex, B, at the membranous part of the urethra, and the base formed by the external incision, A C. It is quite evident, looking at this, that a line of incision passing to the membranous part of the urethra, from any part of the wound except the lowest, must strike the bulb, but that if the knife be directed up from the lowest part it passes behind this overlapping portion. In order to accomplish this part of the operation it is necessary to lower the wrist when making for the staff, and therefore I consider the kneeling posture the one which brings the operator well under the bladder, and enables him most easily to perform this important step of his operation. I have no doubt but that this procedure also materially aids in the prevention of infiltration of urine, by making the wound into the bladder more direct and depending.







2.—ANEURISM OF THE POPLITEAL ARTERY CURED BY DIGITAL PRESSURE, IN TWENTY-SIX HOURS AND FORTY-FIVE MINUTES.

The cure of aneurism by any form of compression will always be regarded with considerable interest by the Irish surgeon, as among the many improvements in modern surgery, and as one which we are entitled to claim as essentially our own. The simple, and almost painless, pressure of the human finger, producing a rapid and easy cure of a popliteal aneurism, is well exemplified, I conceive, in the following case, which I had under my care in the Meath Hospital.

George K., aged sixty-six years, was admitted to the hospital April 18th, 1865. The history of his case was briefly as follows:—Five years of his life, up to ten months prior to seeking advice, he had been employed driving a car. The seat from which he drove he described as being too low for a man of his height, and causing his knees to be bent and cramped considerably. His employer's death, however, compelled him to give up this occupation and adopt that of a labourer, when he had occasionally to walk great distances. Towards the end of December, 1864, he suffered greatly from a cramp which extended down the back of his right leg, from the knee to the heel. He did not, however, at that time seek any remedy, but endured the pain until the middle of February, 1865, when he noticed a pulsating tumour in the right ham. He was annoyed by feeling a throbbing in the part, and stiffness, particularly after sitting a short time. On the day mentioned he sought relief for a hydrocele of the tunica vaginalis testis, and complained of a swelling, and throbbing behind his right knee. The main symptom present on admission was a pulsating tumour, the size of a small hen egg, in the right popliteal space, and the circumference of the right limb (measuring over the centre of the tumour), was one inch larger than the left. The tumour became smaller and softer when pressure was made upon the femoral artery at the groin, and at the same time all pulsation ceased. The pulsation was eccentric and synchronous with that of the heart, and a *bruit de soufflet* was audible on applying a stethoscope to the tumour. There was not the least amount of œdema of the right leg or foot observable. The patient was a good-tempered old man, and when the nature of his malady was explained, and the mode of treatment mentioned, he at once promised to aid in every way by obedience

to my orders. On a careful examination of his chest and abdomen no other aneurismal development could be discovered. Considering this a very suitable case to try digital pressure, I commenced it on the morning of the 19th April, at 11 o'clock, a.m., a number of the pupils of the hospital kindly volunteering their assistance, and each gentleman becoming responsible for two hours pressure at a time, up to 9 o'clock, p.m. Having applied a flannel roller from the foot to the knee, and shown the pupils how to make pressure by placing the points of the middle and index fingers of the left hand over the femoral artery where it crosses the brim of the pelvis, then to fix and increase the pressure by placing the middle and ring fingers of the right hand on those already over the vessel, I desired that the pulsation in the tumour should be arrested as much as possible. I also taught the patient himself to press the vessel, and throughout the treatment of the case he occasionally gave assistance to the young gentlemen in charge. I visited him at 2 o'clock, p.m., April the 19th, and learned that the compression had been carefully sustained, and was well borne by the patient. The tumour was now certainly more solid than before, but the pulsation remained undiminished whilst the leg and foot affected were warmer than the other. Again, at 5 o'clock, p.m., of the same day I saw him. The solidity of the aneurism had by this time evidently increased; but as yet no apparent change had taken place in the force of pulsation. 9 o'clock, p.m. The tumour now was much more solid. The pressure was then discontinued for the night, and thirty drops of Battley's sedative liquor of opium administered in a draught.

April 20th, 9.30 o'clock, a.m.—The man had passed a tolerably good night; awoke once about midnight with a sharp pain in the tumour. This was the first time he had ever felt pain in the aneurism, but it did not last more than half an hour, when he fell asleep. Compression was resumed this day, by gentlemen who came forward to offer their assistance, as others had done on the day before. 12 o'clock, p.m.—The tumour now was very solid, and the pulsation was greatly diminished. 1.45 o'clock, p.m.—Pulsation had now ceased completely, and the sac was firm and solid. The patient complained of slight numbness along the back, and outside of his leg, but there was no œdema whatever in leg or foot. The pressure was continued in a slight degree up to 7 o'clock that evening, when it was finally discontinued. The beating of the femoral artery could be traced down at this period to about four inches from the knee. He got the opiate, as before, at 9 o'clock, p.m.



April 21st.—He had passed an excellent night; no pain or swelling in the limb. The superior internal articular artery was evidently enlarged, and pulsating strongly. I kept him in bed for a fortnight from this date, with the limb rolled in flannel, and the tumour gently rubbed, every night, with a liniment, consisting of 2 oz. of soap liniment and 15 grains of iodide of potassium. He was then allowed to get up, and move about the ward on crutches.

May 29th.—I tapped his hydrocele; and on the 3rd of June he was discharged the Hospital.

Thus, in the short time mentioned, this formidable disease was perfectly cured by finger pressure. The point where the fingers rested was only slightly reddened, but did not become sore throughout the treatment; and he never complained that the pressure gave him pain. This contrasts strongly with instrumental arrest of the flow of blood through an aneurism; for no matter how carefully applied, it cannot be borne so long as can the finger top; and further, the artery cannot be isolated so completely from its accompanying vein by mechanical as by digital compression, and therefore, œdema of the limb is more likely to ensue. There is less likelihood of ulceration, or sloughing of the skin occurring under the point of pressure than when an instrument is used, inasmuch as by being so direct, a smaller amount of force suffices to control the current of blood through the artery; and, as the point of pressure can with such ease be changed to a higher or lower position. But in addition to all this, the rapidity of the cure in cases of digital treatment contrasts most favourably with any mechanical pressure, as in one case a few hours usually accomplish what in the latter requires days. With respect to the rapidity of cure in cases of aneurism treated by compression of any kind, I cannot more appropriately conclude this account of mine than by citing some remarks of my esteemed friend and very accomplished surgeon, Mr. L'Estrange, at a recent meeting of the Surgical Society of Ireland. They struck me forcibly at the time, and are well worth the attentive consideration of every practical surgeon. I quote from the *Dublin Medical Press*, June 7th, 1865, p. 536. He said:—"I would wish to observe that it appears to me that there must be some peculiar state of the blood, which admits of quicker coagulation in some individuals than in others, placed under similar circumstances and under similar treatment. For instance, we have in this city, within these last few months, three cases of aneurism treated by external compression. In one, cure by coagulation

of the contents of the sac was effected in the short space of five hours and three-quarters (Dr. Mapother); the second was effected in twenty-five hours and a-half (Mr. Porter)—(here he slightly erred); and in the third, coagulation could not be effected although the external compression was steadily kept up, and well borne by the patient for many weeks. It would be of great importance to ascertain this physiological and pathological fact, as to the coagulation of the blood in the aneurismal sac under compression. This, I should think might be ascertained, or great light thrown on the subject, by taking a small quantity of blood from each of these patients—Dr. Mapother's, Mr. Porter's, and the one in the City of Dublin Hospital—in which coagulation would not take place by external compression; and by submitting their blood to chemical and microscopical tests, much information might be obtained, which would conduce materially to the scientific treatment of aneurism."

### 3.—CASTRATION; THE VESSELS OF THE CORD SECURED BY ACUPRESSURE.

This new mode of arresting hemorrhage has not yet been much adopted in this country, although emanating from the brilliant genius of Professor Simpson, whose name must give weight to any medical or surgical suggestion. In Dublin, the first surgeon who used acupressure, according to this modern plan of Simpson, was my esteemed colleague, Professor Macnamara, in a case of amputation of the breast, and with perfect success. He has also by this means arrested the bleeding from a stump, after amputation through the knee. I have also seen this method in the hands of my friend Mr. Banon, successfully restrain bleeding from a vessel deep under the tongue, when he removed a large portion of the front of the lower maxilla. In the following case I tried it myself with happy results.

Thomas T., aged forty, a drummer in a militia regiment, was admitted into the Meath Hospital Feb. 20th, 1865. He stated that eight months previously he had received an injury of the left testis, by knocking it against the corner of a large chest. On the next day acute orchitis set in; the testicle soon suppurated; shortly afterwards the wall of the abscess became attached to the scrotum,



which at last gave way, when a large fungoid growth protruded. On admission the tumour seemed to be that termed lipoma, and from its size the whole testicle appeared unravelled, and deranged. Its surface was irregular, of a dirty ash colour, and it exuded a thin fetid discharge. It gave the patient little or no pain; his health was not impaired, and there was no glandular enlargement in the groin or abdomen. Various astringent applications were used to restrain its growth, prior to the performance of Syme's operation of paring the edges of the scrotal aperture, pushing back the testicle, and stitching the edges of the scrotum over it. These appliances had no beneficial effect; and as he wished to be with his corps while under training, he insisted upon the more speedy cure by extirpation. Accordingly, on the 7th April, he being under the influence of chloroform, I performed the operation in the usual manner, by an incision commenced at the external abdominal ring, carried to the tumour, and then from the lower part of the growth, about half an inch towards the bottom of the scrotum; a longer incision not being required as the testicle protruded. Having then separated the testis from its bed, I isolated the spermatic cord, and passed under it a needle with a wire attached. Having then passed a wire loop over the point of the needle so placed, I brought it in front of the cord, and winding it under the other end of the needle (after Simpson's third plan), I tightly secured the entire cord between the needle and wire. I then divided the cord below the needle, and found the vessels perfectly restrained, without exuding a drop of blood. In addition to the arrest of bleeding, the needle, which lay across the top of the wound, prevented any retraction of the cord. The end of the cord was kept in view in such a way that if any bleeding had taken place the vessels could have been tied with the greatest ease. There was now only one other artery at the septum scroti to be secured. It was arrested by acupressure in the same way. Having then shortened the needle with a nippers, I brought the wires out through the wound, and approximated the edges by three points of silver wire suture. April 9th.—I removed the needles with the greatest ease; the patient felt no pain, nor did a drop of blood follow. The wound healed kindly, a moderate amount of suppuration taking place. It was perfectly cicatrised on the 29th April, and the man was discharged from the hospital on the 5th May. From my limited experience of this method I could not venture to recommend the surgeon on all occasions to adopt this mode of sealing vessels, though nothing could be more satisfactory

than its action in this case just related. One of the objections to acupressure is the pain produced by pressing on nerves; yet here the entire spermatic cord was enclosed between the needle and wire without causing much annoyance. The patient never complained of pain after he recovered from the anesthetic sleep. From my own experience, and that of some other surgeons, the great objection that might be urged to acupressure is that it is certainly more *tedious* than the ligature. But I have no doubt that we sometimes find bleeding vessels in situations where it will be found far easier to control the hemorrhage by this means than the ligature.



